



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,084	03/08/2001	Thomas P. Glenn	G0049	8517

7590 08/16/2004

Serge J. Hodgson
Gunnison, McKay & Hodgson, L.L.P.
1900 Garden Road, Suite 220
Monterey, CA 93940

EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT	PAPER NUMBER
----------	--------------

2826

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Interview Summary

Application No.

09/803,084

Applicant(s)

GLENN ET AL

Examiner

Alexander O Williams

Art Unit

2826

All participants (applicant, applicant's representative, PTO personnel):

(1) Alexander O Williams.

(3) _____.

(2) Serge J. Hodgson.

(4) _____.

Date of Interview: 13 August 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1-5, 23-25 and 30-41.

Identification of prior art discussed: Choo et al.


Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed the outstanding art rejection versus Applicant's proposed response remarks. Applicant pointed out the difference from the prior art and the claimed invention mainly in that the art fail to show said first alignment mark extending from said first surface to said second surface of the wafer. The examiner pointed out the prior art's discussing the criss point of a marked cutting line to selected depth. The Applicant will further point out the difference in the response to the last office action .

Garden West Office Plaza
Suite 220
1900 Garden Road
Monterey, CA 93940
Tel. 831-655-0880
Fax 831-655-0888

GUNNISON, McKAY & HODGSON, LLP

FACSIMILE TRANSMISSION

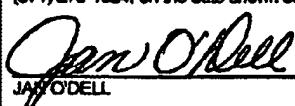
To:	USPTO Examiner Williams, Alexander O.	From:	Serge J. Hodgson
Phone:	(571) 272-1924	Pages:	6 (including this page)
Fax:	(571) 273-1924	Date:	August 11, 2004

Re: Applicant(s): Thomas P. Glenn et al.
Assignee: Amkor Technology, Inc.
Title: **WAFER HAVING ALIGNMENT MARKS EXTENDING FROM A FIRST TO A SECOND SURFACE OF THE WAFER**
Serial No.: 09/803,084 Filed: March 8, 2001
Examiner: Williams, Alexander O. Group Art Unit: 2826
Docket No.: G0049

DO NOT ENTER; FOR DISCUSSION ONLY

Enclosed herewith are:

1. Applicant Initiated Interview Request Form (1 page); and
2. Draft Amendment (4 pages).

CERTIFICATE OF TRANSMISSION	
I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office, Fax No. (571) 273-1924, on the date shown below.	
 JAN O'DELL	August 11, 2004 Date of Signature

THE INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS INTENDED ONLY FOR THE PERSONAL AND CONFIDENTIAL USE OF THE DESIGNATED RECIPIENT NAMED ABOVE. THIS MESSAGE MAY BE AN ATTORNEY-CLIENT COMMUNICATION, AND AS SUCH IS PRIVILEGED AND CONFIDENTIAL. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT OR AN AGENT RESPONSIBLE FOR DELIVERING IT TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT YOU HAVE RECEIVED THIS DOCUMENT IN ERROR AND THAT ANY REVIEW, DISSEMINATION, DISTRIBUTION OR COPYING OF THIS MESSAGE IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS COMMUNICATION IN ERROR, PLEASE NOTIFY US IMMEDIATELY BY TELEPHONE AND RETURN THE ORIGINAL MESSAGE TO US BY MAIL. THANK YOU.

Appl. No. 09/803,084
Amdt. dated [DATE]
Reply to Office Action of May 14, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Thomas P. Glenn et al.

Assignee: Amkor Technology, Inc..

Title: WAFER HAVING ALIGNMENT MARKS EXTENDING FROM A
FIRST TO A SECOND SURFACE OF THE WAFER

Serial No.: 09/803,084 Filed: March 8, 2001

Examiner: Williams, Group Art 2826
Alexander O. Unit:

Docket No.: G0049

Monterey, CA
[DATE]

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE

Dear Sir:

This is in response to the Office Action dated May 14,
2004:

1. Remarks begin on page 2 of this paper.

DO NOT ENTER —
FOR Discussion only

GUNNISON, MCKAY &
HODGSON, L.L.P.
Gordon West Office Plaza
1900 Gordon Road, Suite 220
Monterey, CA 93940
(831) 655-0880
Fax (831) 655-0888

Page 1 of 4

Appl. No. 09/803,084
Amdt. dated [DATE]
Reply to Office Action of May 14, 2004

REMARKS

Claims 1-15, 23-25, and 30-41 are patentable over Choo et al. (6,407,360).

Regarding Claim 1, the Examiner states:

... Choo et al. (figures 1 to 37) specifically figures 5 and 20 show a wafer 100 comprising: a first surface (top of 100); a second surface (bottom of 100); a first scribe line 120a coupled to said first surface, said first scribe line extending in a first direction; a second scribe line 120b coupled to said first surface, said second scribe line extending in a second direction perpendicular to said first direction; and a first alignment mark (127, see figure 20) formed at an intersection of said first scribe line and said second scribe line (Office Action, pages 2-3, emphasis added and in original.)

However, the Examiner admits:

Choo et al. fail to explicitly show said first alignment mark extending from said first surface to said second surface.. (Office Action, page 3, emphasis added.)

To cure this glaring deficiency, the Examiner further asserts:

However, Choo et al. does disclose before cutting the wafer, pre-cut grooves at the start edge, and edge, or cross point of a marked cutting line to selected depth (see figure 5 and column 6, lines 54-58 and column 7, lines 9-18).

... Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to use the teaching of Choo et al.'s depth of groove in a alignment mark to be a hole from a first surface to a second surface for the purpose of providing alignment mark for other procedures can be completed accurately for the completion of making a device. (Office Action, pages 3 and 5, emphasis in original.)

The Examiner's assertion is respectfully traversed. Choo et al. teaches that the purpose of the pre-cut grooves is to prevent deviation of the crack that actual cuts the substrate.

GUNNISON, MCKAY &
HODGSON, L.L.P.
Garden West Office Plaza
1900 Garden Road, Suite 220
Menlo Park, CA 94025
(650) 655-0888
Fax (650) 655-0888

Appl. No. 09/803,084
Amdt. dated [DATE]
Reply to Office Action of May 14, 2004

Accordingly, Choo et al. teaches away from having the pre-cut grooves extend all the way through the substrate since this would defeat the cutting of the substrate by the crack.

Specifically, Choo et al. teaches:

Meanwhile, when the cutting lines cross each other, it is difficult to perform a secondary cutting step using a laser beam if the substrate is first cut by a laser beam. The reason is that the cut face cut by the first laser cutting is very smooth. Therefore, when secondary cutting is performed using a laser beam along direction normal to the first cutting line, propagation of the crack stops prior to the crossing point of the first and secondary cutting lines.

Thus, in the present embodiment, so as to properly cut a substrate with a crossing point, a pre-cut groove is formed in the crossing point of the cutting lines. ...

According to the above method, while the crack is propagating along the second cutting line 120b, although the cross point appears, since pre-cutting groove has been formed at the cross point, the crack propagates with linearity passing the cross point till reaching the end edge of the second cutting line. (Col. 13, lines 5-57, emphasis added.)

Further, Choo et al. teaches the desirability of a smooth cut face:

It is still another object of the present invention to obtain a smooth cut face of a glass substrate and a panel. (Col. 3, lines 35-37.)

Accordingly, Choo et al. teaches away from cutting the substrate all the way through with the pre-cut grooves as asserted by the Examiner and then cutting the remainder of the substrate with the crack as this would inherently cause an uneven cut face.

For at least the above reasons, Choo et al. does not teach or suggest a wafer comprising:

a first surface;

GUNNISON, MCKAY &
RODGSON, L.L.P.
Charles West Office Plaza
1301 Charles West Plaza
Menlo Park, CA 94025
(415) 655-0888
Fax (415) 655-0888

Appl. No. 09/803,084
 Amdt. dated [DATE]
 Reply to Office Action of May 14, 2004

a second surface;
 a first scribe line coupled to said first surface,
 said first scribe line extending in a first direction;
 a second scribe line coupled to said first surface,
 said second scribe line extending in a second direction
 perpendicular to said first direction; and
 a first alignment mark formed at an intersection of
 said first scribe line and said second scribe line, said
 first alignment mark extending from said first surface
 to said second surface,

as recited in Claim 1, emphasis added. Accordingly, Claim 1 is allowable over Choo et al. Claims 2-15, 30, 41, which depend from Claim 1, are allowable for at least the same reasons as Claim 1.

Claims 23, 37 and 40 are allowable for reasons similar to Claim 1. Claims 24-25, 31-36, which depend from Claim 23, are allowable for at least the same reasons as Claim 23. Claims 38-39, which depend from Claim 37, are allowable for at least the same reasons as Claim 37.

For the above reasons, Applicants respectfully request reconsideration and withdrawal of this rejection.

CONCLUSION

Claims 1-15, 23-25, 30-41 are pending in the application. For the foregoing reasons, Applicants respectfully request allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant(s).

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on [DATE].

Respectfully submitted,

Serge J. Hodgson
 Attorney for Applicant(s)
 Reg. No. 40,017
 Tel.: (831) 655-0880.

Attorney for Applicant(s)

[DATE]
 Date of signature

GUNNISON, MCKAY &
 HODGSON, L.L.P.
 Golden West Office Plaza
 1900 Golden Road, Suite 270
 Monterey, CA 93943
 (831) 655-0880
 Fax (831) 655-0888

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

1/4

#3

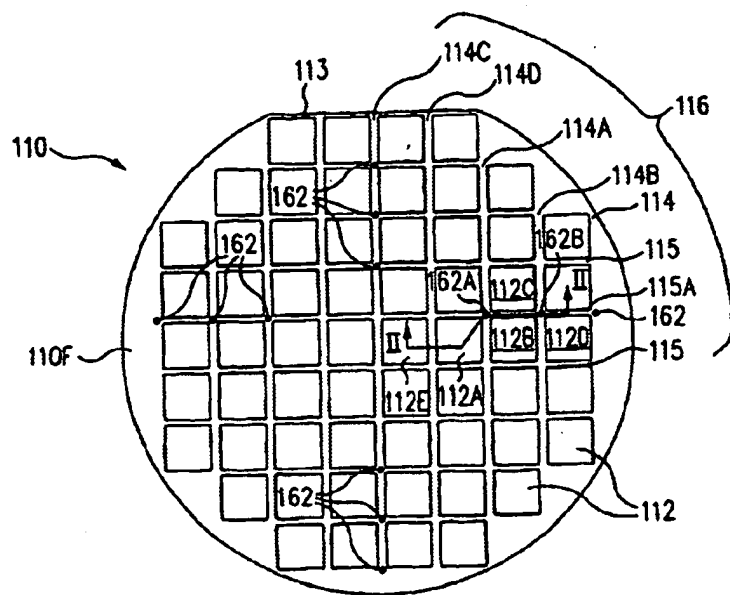


FIG. 1

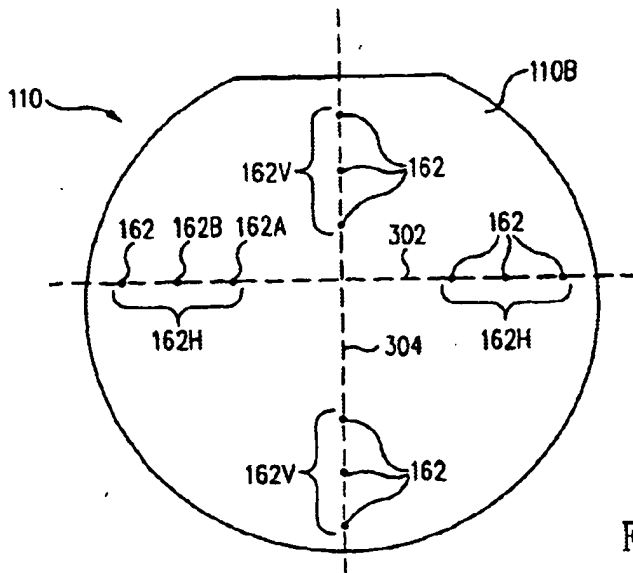


FIG. 3

09803084-051801

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

2/4

0803084-051804

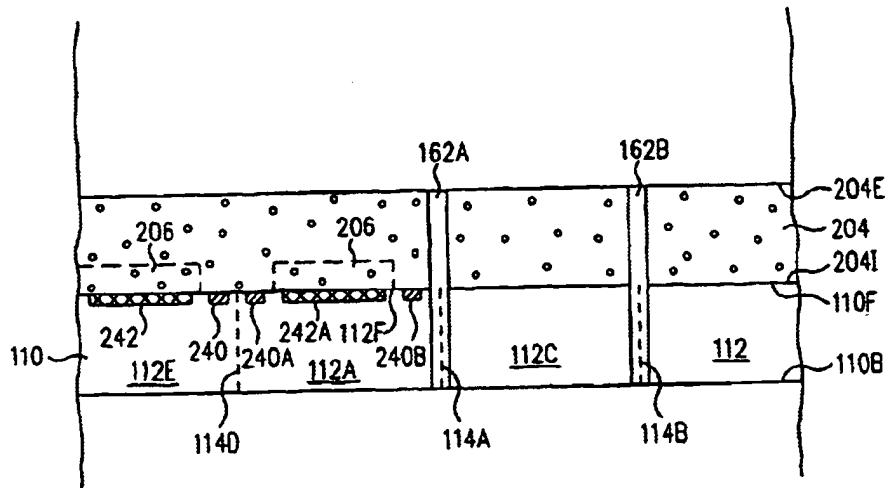


FIG. 2

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

3/4

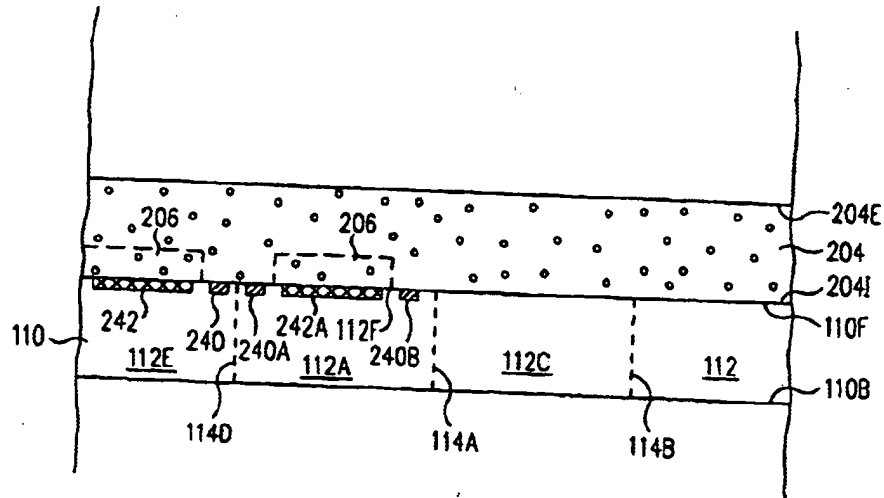


FIG. 4

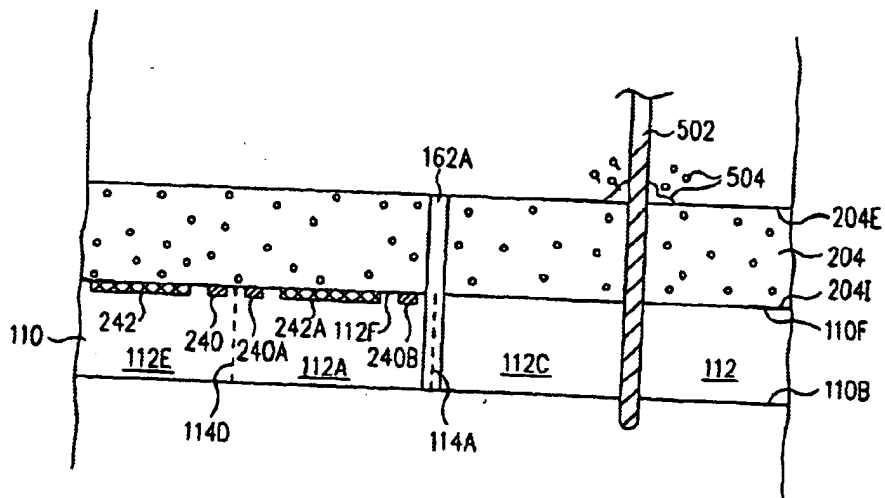


FIG. 5

PTOL-413A (05-03)

Approved for use through 10/30/2004, OMB 0551-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Applicant Initiated Interview Request Form

Application No.: 09/803,084 First Named Applicant: Thomas P. Glenn
 Examiner: Williams, Alexander O. Art Unit: 2826 Status of Application: Pending

Tentative Participants:

(1) Serge J. Hodgson (2) Williams, Alexander O.
 (3) (4)

Proposed Date of Interview: August 12, 2004 Proposed Time: 11:00 AM Pacific Daylight Saving Time

Type of Interview Requested:

(1) ☒ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☒ YES ☐ NO

If yes, provide description: Proposed amendment

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig.#s	Prior Art	Discussed	Agreed	Not Agreed
(1) Rejection	<u>1-15, 23-25, 30-41</u>	<u>6,407,360</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4)			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Continuation Sheet Attached

Brief Description of Arguments to be Presented:

Claims 1-15, 23-25, 30-41 are allowable over USP 6,407,360 for reasons set forth in proposed response.

An interview was conducted on the above-identified application on _____.

NOTE:

This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP §713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

[Signature]
 (Applicant/Applicant's Representative Signature)

[Signature]
 (Examiner/SPE Signature)

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 21 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.